

What Is Claimed Is:

1. A document comprising:

- a) a substrate;
- b) an encoded game data portion imaged on the substrate, said

5 encoded game data portion comprising:

- 1) a base layer printed with an ink having a first reflectance value as measured by the reflectance of a given wavelength of light;
- 2) a second layer comprising an ink having a second reflectance value different than the first reflectance value as measured by the reflectance of said given wavelength of light;

wherein the base layer and the second layer together define a game data region and a non-game data region with at least one of said regions comprising an encoded
15 pattern of symbols associated therewith; and

c) at least one scratch-off layer over said encoded game data portion.

2. The document of claim 1 wherein the second reflectance value is less than the first reflectance value.

3. The document of claim 1 wherein the given wavelength of light is a red light.

4. The document of claim 1 wherein the second reflectance value is from about 0 to 10% reflectance.

5. The lottery ticket of claim 1 wherein the second reflectance value is 0% reflectance.

6. The lottery ticket of claim 1 wherein the first reflectance value is from about 23 to 43% reflectance.

7. The lottery ticket of claim 6 wherein the first reflectance value is about 33% reflectance.

8. The document of claim 1 wherein the encoded pattern of symbols is present in at least one of the game data region and the non-game data region.

9. The document of claim 8 wherein the encoded pattern of symbols appears in both the game data region and the non-game data region.

10. The document of claim 8 wherein the encoded pattern of symbols appears in less than the entire game data region or the non-game data region.

11. The document of claim 8 wherein the encoded pattern of symbols comprises a fixed arrangement of said symbols in more than one rotational orientation.

12. The lottery ticket of claim 8 wherein the encoded pattern for at least one said regions is different than the encoded pattern for another of said regions.

13. The lottery ticket of claim 8 wherein the encoded game data portion comprises at least one cell having a game data region and a non-game data region, each of said game data and non-game data regions having said base layer printed thereon, said game data region further comprising said second layer printed thereon in a first encoded pattern of symbols.

14. The lottery ticket of claim 13 wherein the non-game data regions have said second layer printed thereon in a manner which leaves a second encoded pattern thereon.

15. The document of claim 14 wherein the non-game data region comprises a second layer with a non-game data associated encoded pattern of symbols from said base layer present thereon.

16. The document of claim 1 further comprising at least one additional layer printed over the at least one scratch-off layer and having a scratch-off layer associated encoded pattern thereon.

17. The document of claim 16 wherein said additional layer comprises,
- 3) a third layer printed with an ink having a third reflectance value as measured by said given wavelength of light;
 - 4) a fourth layer printed with an ink having a fourth reflectance value different than the third reflectance value, as measured by said given wavelength of light.

18. The document of claim 16 wherein the fourth reflectance value is less than the third reflectance value.

19. The document of claim 18 wherein the third reflectance value is from about 90 to 100% reflectance.

20. The document of claim 19 wherein the third reflectance value is 100% reflectance.

21. The document of claim 20 wherein the fourth reflectance value is from about 57 to 77% reflectance.

22. The document of claim 21 wherein the fourth reflectance value is about 67% reflectance.

✕ 23. The document of claim 16 wherein the scratch-off layer associated pattern comprises an encoded pattern of symbols over at least a portion of the scratch-off layer.

✕ 24. The document of claim 23 wherein said second encoded pattern of symbols comprises a fixed arrangement of symbols in more than one rotational orientation.

25. The document of claim 17 wherein the additional layer covers a plurality of cells, each cell with the second encoded pattern comprising symbols of said fourth layer printed on the third layer.

26. The document of claim 1 further comprising a layer invisible to the human eye which has a preselected reflectance value for a given wavelength of light.

27. The document of claim 26 wherein said layer reflects the near infrared spectrum.

28. The document of claim 1 in the form of a lottery ticket.

54B/15 29. A method of detecting tampering of a document comprising:

- a) a substrate;
- b) an encoded game data portion imaged on the substrate, said encoded game data portion comprising:

- 1. a base layer printed with an ink having a first reflectance value as measured by the reflectance of a given wavelength of light;
- 2. a second layer comprising an ink having a second reflectance value different than the first reflectance value as measured by the reflectance of said given wavelength of light;

wherein the base layer and the second layer together define a game data region and a non-game data region with at least one of said regions comprising an encoded pattern of symbols associated therewith; and

- c) at least one scratch-off layer over said encoded game data portion,
- said method comprising contacting said document with said given wavelength of light, detecting a reflectance value of said document obtained from said contacting step and comparing said reflectance value with a reflectance value from a standard value for said document.

30. The method of claim 29 comprising detecting the reflectance value of at least one of said base layer and said second layer.

31. The method of claim 30 comprising detecting the reflectance value of said encoded pattern of symbols.

32. The method of claim 29 wherein said document further comprises at least one additional layer printed over the at least one scratch-off layer and having a scratch-off associated encoded pattern thereon, said method further comprising detecting the reflectance value of said additional layer and comparing said reflectance value with a reflectance value obtained from a standard value for said document.

33. The method of claim 29 wherein said document further comprises a layer invisible to the human eye which has a preselected reflectance value for a given wavelength of light, said method comprising contacting said document with said give wavelength of light, detecting the reflectance value of said invisible layer and comparing the reflectance value with the reflectance value from a standard value for said document.

34. The method of claim 33 comprising contacting the document with a near infrared light source.

35. A method of producing a tamper resistant document comprising applying to a substrate an encoded game data portion which comprises:

1. a base layer printed with an ink having a first reflectance value as measured by the reflectance of a given wavelength of light;
2. a second layer comprising an ink having a second reflectance value different than the first reflectance value as measured by the reflectance of said given wavelength of light;

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wherein the base layer and the second layer together define a game data region and a non-game data region with at least one of said regions comprising an encoded pattern of symbols associated therewith; and

applying at least one scratch-off layer over said encoded game data portion.

36. The method of claim 35 further comprising applying at least one additional layer over the scratch-off layer having a scratch-off layer associated encoded pattern thereon.

37. The method of claim 36 comprising applying a third layer printed with an ink having a third reflectance value as measured by said given wavelength of light and applying a fourth layer printed with an ink having a fourth reflectance value different from the third reflectance value as measured by said given wavelength of light.

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